

# Operator Training

## Manual Tank Gauging

D H E C



PROMOTE



PROTECT



PROSPER

South Carolina Department of Health  
and Environmental Control

# Release Detection

- Means watching the tank system on a routine basis so that if a release occurs, it will be discovered as quickly as possible
- All tanks are required to have release detection except tanks that serve as emergency generators

# Release Detection Requirement

Must use a method and/or equipment capable of finding a leak of 0.2 gallons per hour (gph) within 30 days

How much is 0.2 gallons  
per hour??

# Release Detection



A leak of 0.2 gallons per hour is the same as losing 2 cola cans worth of fuel in an hour

# Release Detection

Release detection requires that we look for a 0.2 gph leak at least once every month...

$$0.2 \text{ gph} \times 24 \text{ hours} \times 30 \text{ days} = 144 \text{ gallons per month}$$

# Manual Tank Gauging

- Acceptable as a release detection method only for tanks 550 gallons or less
- Requires an accurate tank chart
- Requires accurate stick readings with a stick that can measure to within 1/8<sup>th</sup> inch
- The measuring stick should be in good shape (plastic button in place on end of stick, markings still readable)

# Manual Tank Gauging How-To



- Take the tank out of service (usually done over the weekend). Do not allow any fuel to be placed into or removed from the tank during the test period.
- Stick the tank twice at the beginning of the test period and record the information
- Allow the tank to sit undisturbed for at least 36 hours
- Stick the tank twice at the end of the test period and record the information

# Manual Tank Gauging

## MANUAL TANK GAUGING RECORD

MONTH \_\_\_\_\_ YEAR \_\_\_\_\_  
 TANK IDENTIFICATION: \_\_\_\_\_  
 PERSON COMPLETING FORM: \_\_\_\_\_  
 FACILITY NAME: \_\_\_\_\_

Circle your tank size, test duration, and weekly/monthly standards in the table below:

Tank Size	Minimum Duration Of Test	Weekly Standard (1 test)	Monthly Standard (4-test average)
up to 550 gallons	36 hours	10 gallons	5 gallons

Compare your weekly readings and the monthly average of the 4 weekly readings with the standards shown in the table on the left.

If the calculated change exceeds the weekly standard, the UST may be leaking. Also, the monthly average of the 4 weekly test results must be compared to the monthly standard in the same way.

If either the weekly or monthly standards have been exceeded, the UST may be leaking. As soon as possible, call your implementing agency to report the suspected leak and get further instructions.

Start Test (month, day, and time)	First Initial Stick Reading	Second Initial Stick Reading	Average Initial Reading	Initial Gallons (convert inches to gallons) [a]	End Test (month, day, and time)	First End Stick Reading	Second End Stick Reading	Average End Reading	End Gallons (convert inches to gallons) [b]	Change In Tank Volume In Gallons + or (-) [a-b]	Tank Passes Test  (circle YES or NO)
Date: _____ Time: _____ AM/PM					Date: _____ Time: _____ AM/PM						Y N
Date: _____ Time: _____ AM/PM					Date: _____ Time: _____ AM/PM						Y N
Date: _____ Time: _____ AM/PM					Date: _____ Time: _____ AM/PM						Y N
Date: _____ Time: _____ AM/PM					Date: _____ Time: _____ AM/PM						Y N
<b>KEEP THIS PIECE OF PAPER ON FILE FOR AT LEAST 1 YEAR</b>											Y N
To see how close you are to the monthly standard, divide the sum of the 4 weekly readings by 4 and enter result here >											

Record all information on the form shown above. Using the gathered information, fill in the rest of the form for the week (Change in Tank Volume and Tank Passes).



# Manual Tank Gauging

Tank Size	Minimum Duration of Test	Weekly Standard (1 test)	Monthly Standard (4-test average)
Up to 550 gallons	36 hours	10 gallons	5 gallons

Compare the numbers to the weekly standard. For the tank to pass, the difference between the beginning and ending numbers cannot exceed 10 gallons. You must also reconcile your records every 4 weeks and record the monthly numbers on the Manual Tank Gauge Record. For the tank to pass, the difference between the average gain or loss over the 4-week period cannot exceed 5 gallons. Any weekly or monthly reconciliation that exceeds the allowable difference must be reported to the Department. All weekly and monthly records should be kept for at least 12 months.